

| <b>Notice of Allowability</b> | Application No.                | Applicant(s)         |  |
|-------------------------------|--------------------------------|----------------------|--|
|                               | 10/743,419                     | MAIER, LAWRENCE CARL |  |
|                               | Examiner<br>DONNIE L. CROSLAND | Art Unit<br>2612     |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTO-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to communication filed 12-22-03.
2.  The allowed claim(s) is/are 1-33.
3.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All b)  Some\* c)  None of the:
    1.  Certified copies of the priority documents have been received.
    2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.
  - (b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

#### Attachment(s)

1.  Notice of References Cited (PTO-892)
2.  Notice of Draftsperson's Patent Drawing Review (PTO-948)
3.  Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4.  Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5.  Notice of Informal Patent Application
6.  Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7.  Examiner's Amendment/Comment
8.  Examiner's Statement of Reasons for Allowance
9.  Other \_\_\_\_\_.

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows: **Claim 29**, line 4, "is" was changed to **-in-**.

### **REASONS FOR ALLOWANCE**

The following is an examiner's statement of reasons for allowance: The primary reason for allowing this application is the specific recitation in claim 1 of a multiplexer switch that includes at least one field effect transistor, an isolation circuit and a drive circuit whereby the isolation circuit electrically isolate the drive circuit from the field effect transistor to limit energy coupled to the signal line through the at least one field effect transistor to below levels that could initiate an ignition of the potentially explosive environment of the tank . Claim 11 recites the multiplexing system that includes a multiplexer switch for each sensor and includes a drive circuit whereby the isolation circuit electrically isolate the drive circuit from the field effect transistor to limit energy coupled to the signal line through the at least one field effect transistor to below levels that could initiate an ignition of the potentially explosive environment of the tank. Claim 29 recites the method of multiplexing an excitation signal from a common excitation

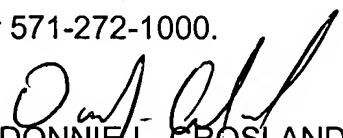
circuit to a plurality of sensors disposed in a tank containing a potentially explosive environment and includes the steps of disposing a multiplexer switch in series with each signal line; isolating each multiplexer switch from a corresponding drive circuit to limit energy to below levels that could initiate an ignition of the potentially explosive environment; and controlling the drive circuit to multiplex the excitation signal from the excitation circuit to selected sensors of the plurality through the corresponding multiplexer switches.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DONNIE L. CROSLAND whose telephone number is 571-272-2980. The examiner can normally be reached on Mon-Thur. 9:30a-6:00p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MICHAEL HORABIK can be reached on 571-272-3068. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



DONNIE L. CROSLAND  
Primary Examiner  
Art Unit 2612

DLC   
1-31-07